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ABSTRACT

Because increasing the rate of student retention has become synonymous with higher college enrollments, there is a resurgence of interest in developmental programs and a need to identify what a developmental reading program can deliver in a total retention effort. Two issues from retention research confront college reading programs: the limitations of retention efforts, and the identification of significant causes of attrition. Studies seeking to verify reading achievement as a valid predictor of student success in college have found a moderate relationship between reading achievement and persistence. Researchers who document retention of reading gains do not account for student attrition, while studies of the effect of reading instruction on grade point average have been unable to account simultaneously for the three critical variables of reading gain, grade point average gains, and student attrition. If college reading professionals are going to deal with problems of attrition and retention, they should (1) provide a basic and understandable guide to program evaluation, (2) look for differential treatment models that address sequence of treatment within a semester and across several semesters, (3) reconceptualize research along the lines of student retention, (4) take a strong leadership role in retention research, and (5) be prepared to accept some fairly modest results, given the limitations of retention efforts in general. (HOD)

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What The Literature Says About The College Reading Program And Its Role In Student Retention Efforts

A Paper Presented At The College Reading Association Annual Conference

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What The Literature Says About The College Reading Program And Its Role In Student Retention Efforts

Developmental reading programs have a long history in higher education. Research and writing on these programs span innumerable topics, and summaries of these studies have sought to ascertain the status and/or efficacy of specific dimensions of college reading programs such as diagnostic techniques, instructional strategies, and materials types. There is a need to take a more far reaching look at the studies completed on higher education reading programs in order to answer the question, "What should be the role of the college reading program in student retention efforts?"

Background

The Final Report of the Carnegie Council on Policy Studies in Higher Education, Three Thousand Futures (1980) points out the fact that in the next twenty years enrollment declines in colleges and universities may cause many to close their doors or to drastically curtail programs and services. Roush (1981, pp. 113-114) has criticized this report for not emphasizing retention as a tool for offsetting enrollment declines. Regardless of Roush's criticism, this report has reminded college and university administrators of something that they have known for some time: efforts at bolstering sagging enrollments must go beyond a simple recruitment of new and nontraditional students. They must include efforts toward reducing the number of dropouts and helping students persist to the completion of college degrees. Recent cuts in student financial aid have driven this point home further. In brief, increasing the rate of

student retention has become synonymous with higher enrollments. Because of this there is a resurgence of interest in developmental programs and there is a need to identify what a developmental reading program can realistically deliver in a total retention effort.

Challenges From Retention Research

Two issues from retention research confront college reading programs which are seeking to participate in retention programs:

1. Limitations of retention efforts.
2. Problem of identifying singularly significant causes of attrition which would suggest that singularly significant retention efforts be employed.

Limitations of Retention Efforts

Kuh (1980) suggests that regardless of what strategies universities deploy to increase student retention, a certain percentage of students will not be retained. In saying this, Kuh relies on Astin's (1975) estimate, "that perhaps as many as 80% of those who begin college eventually attain their respective educational objective at some institution within seven to ten years." Kuh (1980, p. 29) concludes by stating:

> "That is, because it is unrealistic to assume that everyone who begins college will (or should) graduate, a completion rate of 80% for all students who enroll in higher education may be as high as can be expected. As a result, retention efforts in the latter part of the decade may seem to be less effective, particularly at colleges that presently have reasonably high matriculation/graduation ratios."

Cope (1978, p. 3) is somewhat less optimistic about retention rates, noting that, "about 40 percent of entering freshmen in baccalaureate-granting institutions never achieve a degree, about 40 percent will graduate in the 'normal' four years, and the remaining 20 percent will delay their baccalaureate." Regardless of whether one chooses to believe Kuh's 80 percent maximum retention

rate or Cope's 60 percent rate, there does appear to be a cap on the effectiveness of retention efforts in general.

Singular Attrition Causes--Singular Retention Efforts

Munro (1981) identified the following factors at work in college student dropout decisions for a national sample of 6,018 students entering college in the fall of 1972:

VARIABLE:	EFFECT:
Education aspirations (both parents and students)	Most powerful predictors of student commitment to an educational goal.
Educational aspiration	Much more powerful than academic integration when considering goal commitment.
Academic integration	Much more powerful predictor variable than social integration.
High School academic performance	A better predictor of college academic performance than measured aptitude (reading achievement).

The Munro study is an attempt to validate the Tinto (1975) model which views student persistence as an integrative-interactive process between institution and individual. The individual enters the institution, seeking social and academic integration. He brings to this task a certain degree of goal commitment and institutional commitment. The commitment is shaped by background factors and academic ability. Degrees of success in academic and/or social integration, will strengthen or weaken goal commitments and the result is persistence or lack of persistence (Lea, Sedlacek, Stewart, 1979).

The Munro study has identified variables considered critical to student attrition. Reading strategies for enhancing student retention, seemingly, should focus on academic performance and academic integration and attempt to improve these factors. The findings of Astin's study would likewise support

such a move: (1975, p. 148)

> "The student's undergraduate grade-point average has a stronger relationship to dropping out than any other single variable...Thus anything that can be done to enhance students' academic performance will also tend to reduce attrition rates."

But, if a college reading program does move aggressively with the results of the Munro study, it must be kept in mind that her path analysis approach to ascertaining reasons for dropping out accounted for only 14 percent of the total variance. This does not bode well for a reading therapies approach making an appreciable impact on retention. In the words of Lea, Sedlacek, and Stewart, "Numerous studies describe dropping-out behavior, but few explain it." (p. 2, 1979).

In summary, two issues have been identified in retention research which confront college reading programs seeking to become involved in retention efforts. There has been identified, a cap, or limit to the number of students who will finish a college degree. Though this limit may vary from one institution to another, regardless of what is tried to retain all students, some students will not finish. Second, the causes of student attrition have only been partially identified. Together these two issues suggest the need to analyze reading research in order to identify, insofar as possible, more precise relationships between reading and retention.

Reading and Retention

In studying the literature on college reading it is difficult to find many researchers who conceptualize their research as being intended to improve student retention. Studies in college reading too frequently focus on only one or two aspects of the attrition process. Lea, Sedlacek, and Stewart (1979, p. 2) note a shift from emphasis on <u>dropping out</u> or <u>attrition</u> to that of <u>retention</u>. In this shift of emphasis the focus moves from the student (the act of dropping out)

to the institution (efforts at preventing the dropout). The question they pose for retention is this:

> "What can be modified in the educational process so that students will be retained?"

In looking at categories of reading research, I've chosen three areas which seem to bear on this question:

1. Reading measures as predictors of academic success.
2. Retention of reading gains following reading instruction.
3. Impact of reading instruction on college grade-point average.

Prediction Studies

In terms of predicting academic problems for entering college freshman, a typical approach is to first correlate student reading scores with other variables of academic achievement and, second, to make predictions based on the variables, which show the stronger relationships to academic achievement. The manual for the 1981 revision of the Nelson Denney Reading Test (Brown, Bennett, and Hanna, 1981, pp. 7-8) reports correlation coefficients for NDRT to GPA, ACT, and SAT Scores.

High School GPA (Self Report)	.44 - .48 (Math is much lower)
ACT	.56 - .61
SAT	.34 - .52

From these data it would seem that reading has, because of a moderate degree of relationship to other academic predictor variables, a moderate relationship to one aspect of retention. The authors of the new Nelson Denny point out (p. 7)

> "Inclusion of the Nelson Denny with any college entrance battery should noticeably improve its predictive accuracy."

Other recent research tends to support this. Muia and Bliesmer (1976)

reported correlations (NDRT to GPA) of .41 increasing to .50 by the fifth term for a group of Black students admitted through a special program at Penn State. Muia and Bliesmer concluded that academic aptitude and achievement test scores were effective predictors for first semester GPA for Black students. More recently, Carney and Geis (1981), reported a .72 correlation coefficient when NDRT (Form C) were correlated to composite ACT scores. Taken together, the normative data for the revised Nelson Denny, the data from the Muia and Bliesmer study and from the study by Carney and Geis, all seem to suggest that reading achievement seems to have a moderate relationship to variables related to academic success and should be included in an initial battery of predictors.

Looking more closely, however, we find some pretty severe shortcomings in the strategy of predicting academic success based on reading scores. While Carney and Geis (1981) found an initial correlationship of .72 between reading achievement and academic potential (ACT) this relationship dwindled to .41 when comparing reading achievement to academic performance (first semester college GPA). Further, for retention the most powerful predictor of fifth semester enrollment was first semester GPA. Adding the NDRT total score to the first semester GPA in the Carney and Geis population added nothing to the variance for predicting attrition. Geis and Carney (1978), in what appears to be the same population in the previously reported study, broke the sample down into ten academic majors and found considerable differences across academic areas in using reading as a predictor variable for academic success.

Returning to the Muia and Bliesmer study in which they reported reading as a moderately good predictor for Black students retention, they also reported that it was a poor predictor for white students. Goldsmith and Nicholich (1976) have recommended different prediction equations for academic success be developed for majority and minority groups. However, Muia and Bliesmer suggest that the

difference between Blacks and whites in their study could have been nothing more than a shorter range in high school GPA's for whites than for Blacks. In addition to noting differences between groups, Muia and Bliesmer note that predictors did not work consistently across time. Finally, while you might consider reading aptitude as a moderate predictor with some confidence, its total effect on retention is not clearly that important as indicated by the findings of the Munro study.

Retention of Reading Gains

On the surface, at least, retention of reading gain seems crucial to retention of students. That is, if a student is to persist in college, he or she must be provided with reading skills that likewise persist.

Ray (1964) reviewed 19 studies (1945-1964) which purported to measure achievement in reading programs and found little guidance for measuring achievement in reading. In looking over Ray's study, the review showed that the bulk of them did not include tests for statistical significance. One noteworthy study was conducted by Smith and Wood in 1955. The reseachers used an experimental group, a representative control group, and a randomly-selected control group. They found gains following a reading course to be significant in favor of the experimental group. Gains were maintained after sixty weeks.

Ray (1965) found reading gains to be superior for an experimental group over a control group. He found the gains to be significant after three months and after six months. He noted that retention of gain could be affected by maturation and increased demands of college reading.

Stebens and Belden (1970) found gains to be significant on measures of rate, vocabulary, and comprehension for an experimental group. By the fifth semester, both experimentals and controls read significantly better than they had before taking the freshman year reading course; however, the experimental

group read significantly better than the control group. The researchers concluded that academic experience accounted for part of the gains, but, also that formal training significantly affects reading ability.

In 1968, Calvin found that some programs were conducting follow-up studies, but, he did not find this to be a general practice. While a retention of gain approach does not appear to be a very popular research approach, the literature seems to suggest that once gains are demonstrated, they are maintained over time, and, are possibly enhanced by further college study.

At the same time, it has to be recognized in the case of the Stebens and Belden study, the follow-up was conducted on only 35 percent of the original group. By the fifth semester, normal student attrition could account for 35-45 percent of the sample being gone from college. This group could have all been terrific readers and could have left college for a host of reasons other than academic problems, or, they could have left college because of poor reading ability. In brief, the retention of gains approach does not control for attrition.

Effect of Reading Improvement on G.P.A.

Here, the hope is that improved reading achievement will result in higher grade point average which, in turn will contribute to retention. Tillman (1973) and Fairbanks (1974) report moderately favorable results for improvement of GPA with reading instruction. Two emphases come from these studies: 1) Gains were small, though significant, and, 2) there is a need for greater research controls.

Turner, Zais, and Gatewood (1974) established an experimental and a control group with 379 subjects in each group. Using a four part treatment model of counseling, reading instruction, study skills instruction, and tutoring, the researchers demonstrated a significant gain in GPA for the experimental across

two quarters, but, the gain was small and was reported in a quarterly point average.

Burgess, Cranney, and Larsen (1976) found significantly higher GPA's for an experimental group over a control group in the first and seventh terms of college enrollment.

Parham (1977) divided enrollees in a college reading program into persisters and nonpersisters. The persisters attended nine or more hours of reading instruction; the nonpersisters attended eight or fewer hours of reading instruction. She found no differences between the two groups on measures of GPA, personality, entrance scores, and measures of academic aptitude.

Hayward, Orlando, and Bliesmer (1977) studied the effect of reading instruction on overall GPA and on specific course performance. The experimental and control groups were equated on reading achievement. The control group showed significantly greater potential for success than did the experimental group based on a prediction equation of SAT scores and high school GPA. Treatment for the experimental group was based on the SQ3R technique applied to course textbooks. This included rehearsal and written summaries. Reading gain from one semester to the next was in favor of the experimental group (.05 level). No significant differences were found on overall GPA from one semester to the next; although the control group suffered a larger loss in GPA than did the experimental group. Specific GPA for Biology, Psychology, and Sociology favored the experimental group (1.65) over the control group (.87) at the .05 level.

Haburton (1977) used a two part reading course as her treatment. Part one consisted of content reading strategies while part two consisted of practice in the PROBE materials by Charles E. Merrill Publishers. Haburton reported the following results at the end of the first semester:

Variable	Experimental Group	Control Group	Level
GPA	2.48	1.89	.01
Course withdrawals	3.60 hours	5.72 hours	.05
Courses completed successfully	7.90 hours	5.58 hours	.05

Santa and Truscott (1979) conducted a reading course linked directly to the content of Biology, Sociology, and Writing. The class was attended for three hours per week throughout the semester. Instruction was provided in notetaking, content vocabulary, and essay writing on biology and sociology concepts. Critical thinking was taught through debate, research, and writing. The control and experimental groups were equated on the basis of SAT scores. The experimental group had a significantly higher GPA (2.15) than did the control group (1.33) at the end of the first semester.

Staley and Smith (1979), without controlling the content of a reading-study skills course, found no differences between a control and an experimental group on a measure of reading. By the end of the sophomore year, they found no differences between the two groups in GPA. The experimental group had earned significantly higher grades in English (the number of students earning a grade of "C" or above) and had significantly lower attrition. The researchers suggested that simultaneous enrollment in English and reading was a factor in higher retention for the experimental group.

Finally, Martin and Blanc (1981) present the Supplementary Instruction (SI) Model. With this model a paid instructor attends a class (History was the example given.) and takes notes, etc. Then, as a "student of the subject" the instructor provides supplementary instruction to students outside of class, who are experiencing difficulty in the course (scoring low on tests). The SI model employs the following strategies: 1) notetaking skills, 2) test-taking

skills, 3) textbook reading, 4) study skills, 5) bibliographic skills, 6) reasoning-questioning strategies, and, 7) tutorial assistance in the ubject area. The emphasis of the SI Model is to enhance student study ability and subsequently GPA in the history course. The focus of the SI is on the course rather than on the student. Martin and Blanc report a significant shift of grades from the range of W, F, and D into the range of A, B, C for the history course. The interesting thing about the SI model is that there's no skills' testing, nor, is there a corrective program on a massive scale. Students sign up for help and continue to attend sessions for as long as they choose. It's reported to be a relatively inexpensive program suited for dealing with attrition that occurs early in the school year during the first six weeks.

Early research has shown mixed results in ascertaining the effect of college reading programs on GPA. The studies reviewed herein show a generally positive trend; a few studies show at least a recognition of the problem of attrition; however, most do not deal with retention. Most use control groups, however, the equivalence of the control group is questionable in a couple of instances. All of the studies deal with the truly hard to educate. In part, this may be due to grade inflation. Many writers such as Astin (1975, p. 149), Bolin (1975), Fincher (1975), and Maxwell (1979) have discussed the effects of grade inflation. The point here is that if students are in general receiving higher grades for little increase in effort, they may view a reading program as unnecessary to their continued success. Hence, the reading program where grade inflation is strong may have to focus on the student whose GPA is demonstrably low, or who shows a strong potential for a low GPA.

The major question raised by the GPA research is whether or not the treatment was actually responsible for the difference. Burgess (1976) raised this question in the sense that the student with higher motivation may have

volunteered for her program. Martin and Blanc, likewise raise that question concerning the SI model, noting that the SI model may have simply opened some avenues to some frustrated, but motivated learners. Further concerning the SI model, while it promises substantial effect on GPA it is a difficult model to evaluate since it does not control for reading achievement or academic aptitude. Finally, these few studies suggest that the lower the potential for college success, the deeper we must delve into the content itself to derive larger GPA gains.

Summary

Reading researchers have made some inroads into research on college student retention. Studies which seek to verify reading achievement as a valid predictor of student success in college have found a moderate relationship between reading achievement and persistence. Unfortunately, it has not been demonstrated how reading achievement affects different students at different times within their courses of study. Researchers who document retention of reading gains do not account for student attrition. Studies of the effect of reading instruction on GPA have not been able to simultaneously account for the three critical variables of reading gain, GPA gains and student attrition.

Conclusions and Recommendations

While most of us agree that reading ability is important to college work, we are not totally certain what it does to enhance college success; when it does it; and, for whom it does it. The suggestion from this is that reading researchers have been working with a restricted model of retention. That is,

1. Teaching students to read in college, and,
2. Teaching students to achieve in college, and,
3. Teaching students to remain in college,

are, in fact, three separate tasks. They are separate, yet they share some common ground. Because reading researchers have a restricted concept of retention, they have studied bits and pieces of these three issues at one time or another, but, seldom do they look at the entire picture.

If college reading professionals are going to deal with problems of attrition and generate strategies for retention, then there are five recommendations that I am prepared to make:

1. Regular program evaluation is a must. Akst and Hecht (Trillin, 1980, pp. 261-296) provide a basic and understandable guide to program evaluation with implications for research. Anderson (1975) does a good job of describing problems and approaches in college reading research.

2. With regular program evaluation established, we should strive to broaden our research base, looking in particular for differential treatment models which address sequence of treatment within a semester and across several semesters.

3. Along with broadening our research base, we must also seek to reconceptualize our research along the lines of student retention. Lea, Sedlacek and Stewart (1979) provide a basic guide to retention research and discuss problems with retention research. Hoyt (1978) critically analyzes retention research and presents a research design which controls for student goal commitment, satisfaction and motivation.

4. It is my feeling that we should take a strong leadership role in retention research since reading professionals have a long history of research in college student reading and learning problems.

5. Finally, should we press ahead into retention research, we must be prepared to accept some fairly modest results, given the limitations of retention efforts in general.

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